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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/005,697	12/07/2001	Katsuhisa Mochizuki	35.C16071	7655

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NEW YORK, NY 10112

EXAMINER

LEWIS, MONICA

ART UNIT PAPER NUMBER

2822

DATE MAILED: 05/21/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application N .

10/005,697

Applicant(s)

MOCHIZUKI, KATSUHISA

Examiner

Monica Lewis

Art Unit

2822

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 18 February 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 5,8,9 and 12 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 5,8,9 and 12 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 11 April 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

1. This action is in response to the amendment filed February 18, 2004.

Response to Arguments

2. Applicant's arguments with respect to claims 5, 8, 9 and 12 have been considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 5, 8 and 12 are rejected under 35 U.S.C. 103(a) as obvious over Applicant's Prior Art in view of Yasuhara et al. (U.S. Patent No. 4,987,474) and Mori et al. (U.S. Patent No. 5,442,229).

In regards to claim 5, Applicant's Prior Art discloses the following:

- a) a lead (3) of a flexible wiring film (For Example: See Figure 7);
- b) an image pickup element chip (2) electrically connected to the lead at an electrical connection point (4) (For Example: See Figure 7);
- c) a cover glass (1) for protecting a surface of the image pickup element chip (For Example: See Figure 7);
- d) the lead, the image pickup element chip, and the cover glass are sealed in a peripheral portion of the image pickup element chip (For Example: See Figure 7); and
- e) an area of the lead bonded to an insulation base film (8 and 9) (For Example: See Figure 7).

In regards to claim 5, Applicant's Prior Art fails to disclose the following:

a) lead has a hole formed in a portion of the lead, the portion of the lead being between the electrical connection point and a part of the hole is positioned outside the cover glass.

However, Yasuhara discloses the use of a lead with part of the hole positioned outside the cover (For Example: See Figure 1). It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the semiconductor device of Applicant's Prior Art to include the use of a lead with a hole as disclosed in Yasuhara because it aids in enlarging the occupation area (For Example: See Column 6 Lines 29-41).

Additionally, since Applicant's Prior Art and Yasuhara are both from the same field of endeavor, the purpose disclosed by Yasuhara would have been recognized in the pertinent art of Applicant's Prior Art.

b) the lead has a thickness of not greater than 35um.

However, Mori et al. ("Mori") discloses the use of a lead not greater than 35um (For Example: See Column 8 Lines 57 and 58). It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the semiconductor device of Applicant's Prior Art to include the use of a lead not greater than 35um as disclosed in Mori because it aids in the performance of the device (For Example: See Column 6 Lines 20-31).

Additionally, since Applicant's Prior Art and Mori are both from the same field of endeavor, the purpose disclosed by Mori would have been recognized in the pertinent art of Applicant's Prior Art.

Art Unit: 2822

In regards to claim 8, Applicant's Prior Art discloses the following:

a) at least one of a layer for preventing reflection of external light and a layer for preventing multiple reflection is formed between the lead and the cover glass (For Example: See Specification Page 2 Lines 14-27).

In regards to claim 12, Applicant's Prior Art fails to disclose the following:

a) the thickness of the lead is within the range of 18um to 35um.

However, Mori discloses the use of a lead within the range of 18um to 35um (For Example: See Column 8 Lines 57 and 58). It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the semiconductor device of Applicant's Prior Art to include the use of a lead within the range of 18um to 35um as disclosed in Mori because it aids in the performance of the device (For Example: See Column 6 Lines 20-31).

Additionally, since Applicant's Prior Art and Mori are both from the same field of endeavor, the purpose disclosed by Mori would have been recognized in the pertinent art of Applicant's Prior Art.

5. Claim 9 is rejected under 35 U.S.C. 103(a) as obvious over Applicant's Prior Art in view of Yasuhara et al. (U.S. Patent No. 4,987,474), Mori et al. (U.S. Patent No. 5,442,229) and Furukawa et al. (U.S. Patent No. 5,591,960).

In regards to claim 9, Applicant's Prior Art discloses the following:

a) an optical system (12) for focusing light on the image pickup apparatus (For Example: See Figure 7).

In regards to claim 9, Applicant's Prior Art fails to disclose the following:

a) a signal processing circuit for processing an output signal from said solid-state image pickup apparatus.

Art Unit: 2822

However, Furukawa et al. ("Furukawa") discloses the use of a signal processing circuit (For Example: See Column 5 Lines 14 and 15). It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the semiconductor device of Applicant's Prior Art to include the use of a signal processing circuit as disclosed in Furukawa because it aids in processing signal read out (For Example: See Column 4 Lines 46-67 and Column 5 Lines 1-20).

Additionally, since Applicant's Prior Art and Furukawa are both from the same field of endeavor, the purpose disclosed by Furukawa would have been recognized in the pertinent art of Applicant's Prior Art.

Conclusion

6. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

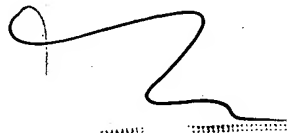
Art Unit: 2822

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Monica Lewis whose telephone number is 571-272-1838.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Amir Zarabian can be reached on 571-272-1852. The fax phone number for the organization where this application or proceeding is assigned is 703-308-7722 for regular and after final communications. Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0956.

ML

May 5, 2004



Mary Wilczewski
Primary Examiner